

operating requirements and environments will be apparent to those skilled in the art, the invention is not considered limited to the example chosen for purposes of disclosure, and covers all changes and modifications which do not constitute departures from the true spirit and scope of this invention.

Having thus described the invention, what is desired to be protected by Letters Patent is presented in the subsequently appended claims.

What is claimed is:

1. A high speed scanning or steering device for pointing a mirror, optic or light source comprising:

means for basing electromotive actuators, parallel motion flexures, and rod flexure attachment boss;

means for restraining five of six possible axes of motion of a translating frame element, rigidly connected to said means for basing electromotive actuators, parallel motion flexures, and rod flexure attachment boss;

means for attaching moving ends of parallel motion flexures and moving end of electromotive actuators;

means for tilting of central spacing element while

restricting sidewise translation motion of said element,  
securely connected to said means for attaching moving ends of  
parallel motion flexures and moving end of electromotive  
actuators;

means for mounting stem attachment and convergent end of  
two bipod flexures, threadably clamped and preferably bonded to  
said means for tilting of central spacing element while  
restricting sidewise translation motion of said element;

means for preventing translation of central element along  
z axis; and

means for anchoring rod flexure to base structure,  
threadably coupled to said means for preventing translation of  
central element along z axis, lockably connected to said means  
for mounting stem attachment and convergent end of two bipod  
flexures, and rigidly connected to said means for basing  
electromotive actuators, parallel motion flexures, and rod  
flexure attachment boss.

2. The high speed scanning or steering device in accordance  
with claim 1, wherein said means for restraining five of six  
possible axes of motion of a translating frame element  
comprises a set of parallel motion flexures.

3. The high speed scanning or steering device in accordance with claim 1, wherein said means for attaching moving ends of parallel motion flexures and moving end of electromotive actuators comprises a pocketed translating frame element, having shear stiffener.

4. The high speed scanning or steering device in accordance with claim 1, wherein said means for tilting of central spacing element while restricting sidewise translation motion of said element comprises a bipod flexure element.

5. The high speed scanning or steering device in accordance with claim 1, wherein said means for mounting stem attachment and convergent end of two bipod flexures comprises a central spacing element.

6. The high speed scanning or steering device in accordance with claim 1, wherein said means for preventing translation of central element along z axis comprises a rod flexure.

7. A high speed scanning or steering device for pointing a mirror, optic or light source comprising:

a base structure, for basing electromotive actuators, parallel motion flexures, and rod flexure attachment boss;

a set of parallel motion flexures, for restraining five of six possible axes of motion of a translating frame element, rigidly connected to said base structure;

a pocketed translating frame element, having shear stiffener, for attaching moving ends of parallel motion flexures and moving end of electromotive actuators;

a bipod flexure element, for tilting of central spacing element while restricting sidewise translation motion of said element, securely connected to said pocketed translating frame element;

a central spacing element, for mounting stem attachment and convergent end of two bipod flexures, threadably clamped and preferably bonded to said bipod flexure element;

a rod flexure, for preventing translation of central element along z axis; and

a rod flexure attachment boss, for anchoring rod flexure to base structure, threadably coupled to said rod flexure, lockably connected to said central spacing element, and rigidly connected to said base structure.

8. The high speed scanning or steering device as recited in claim 7, further comprising:

a mounting stem, for attachment of mirror or light source, rigidly affixed to said central spacing element.

9. The high speed scanning or steering device as recited in claim 7, further comprising:

a sealing cover, for protection from environment, safely connected to said base structure.

10. The high speed scanning or steering device as recited in claim 7, further comprising:

an elastic diaphragm, for sealing a mounting stem, sealably connected to said sealing cover.

11. A high speed scanning or steering device for pointing a mirror, optic or light source comprising:

a base structure, for basing electromotive actuators, parallel motion flexures, and rod flexure attachment boss;

a set of parallel motion flexures, for restraining five of six possible axes of motion of a translating frame element,

rigidly connected to said base structure;

a pocketed translating frame element, having shear stiffener, for attaching moving ends of parallel motion flexures and moving end of electromotive actuators;

a bipod flexure element, for tilting of central spacing element while restricting sidewise translation motion of said element, securely connected to said pocketed translating frame element;

a central spacing element, for mounting stem attachment and convergent end of two bipod flexures, threadably clamped and preferably bonded to said bipod flexure element;

a mounting stem, for attachment of mirror or light source, rigidly affixed to said central spacing element;

a rod flexure, for preventing translation of central element along z axis;

a rod flexure attachment boss, for anchoring rod flexure to base structure, threadably coupled to said rod flexure, lockably connected to said central spacing element, and rigidly connected to said base structure;

a sealing cover, for protection from environment, safely connected to said base structure;

an elastic diaphragm, for sealing a mounting stem, sealably connected to said sealing cover;

an adaptive spacer, for insulating actuators from

preloading screw torque; and

a shear stiffener, for stiffening pocketed translating frame element.